

## Claims

1. An electric motor with a holder (6) for at least  
5 two carbon brushes (5), which by means of spring force (7)  
are pressed in the radial direction against the jacket face  
of a cylindrical collector (4) fixed to the armature shaft  
(2) of the motor, characterized in that the holder (6) can be  
pulled off together with the carbon brushes (5) from the  
10 collector (4) in the axial direction of the armature shaft  
(2) via a pivot bearing (3) that holds the armature shaft  
(2); and that means (11, 12) which cover the pivot bearing  
(3) to protect it against the entry of dirt are provided, on  
their side toward the holder (6) with the carbon brushes (5),  
15 with one or more chamfers (14, 15) extending in such a way  
that the carbon brushes (5) slide over them as the holder (6)  
is being pulled off and in the process are thrust radially  
outward counter to the spring force (7).

20 2. The electric motor of claim 1, characterized in  
that disposed between the collector (4) and the pivot bearing  
(3) on the armature shaft (2) is an armature disk (11); and  
that the end of the armature disk (11) protruding radially  
past the collector (4) is provided with a chamfer (14), over  
25 which the carbon brushes (5) slide as the holder (6) is being  
pulled off and in the process are thrust radially outward  
counter to the spring force (7).

3. The electric motor of claim 1, characterized in  
30 that the pivot bearing (3) is covered by a bearing dome (12),  
which on its face end toward the holder (6) for the carbon  
brushes (5) is provided with a chamfer (15), over which the  
carbon brushes (5) slide as the holder (6) is being pulled  
off and in the process are thrust radially outward counter to

the spring force (7).

4. The electric motor of claim 1, characterized in that disposed between the collector (4) and the pivot bearing (3) on the armature shaft (2) is an armature disk (11); that the pivot bearing (3) is covered by a bearing dome (12), which protrudes past the armature disk (11) in the direction of the collector (4); and that the bearing dome (12), on its face end toward the holder (6) for the carbon brushes (5), is provided with a chamfer (15), over which the carbon brushes (5) slide as the holder (6) is being pulled off and in the process are thrust radially outward counter to the spring force (7).

5. The electric motor of one of claims 2, 3 or 4, characterized in that the chamfer (14, 15) extends rectilinearly.

6. The electric motor of one of claims 2, 3 or 4, characterized in that the chamfer (14, 15) has a curved course.